

This listing of claims will replace all prior versions, and listings, of claims in the application:

What is claimed is:

1. (currently amended) A processing system for processing building structural components constituting a building structure, said processing system comprising:
 - a first station comprising:
 - an input means for inputting at least shape data and relative position data of said building structural components;
 - a two-dimensional diagram constructing means for constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said various shape data and relative position data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane;
 - a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;
 - a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and
 - a strength computing means for computing strengths of said selected building structural components based on said CAD data retrieved from said storage means; and
 - a computer aided manufacturing means second station comprising a processing means for manufacturing processing each of said building structural components based on said CAD data retrieved from said storage means, wherein said computer aided manufacturing means processing means is interconnected with said first station through a communication line.
2. (original) A processing system for processing building structural components according to claim 1, wherein said first station further comprises a cost estimating means for estimating costs of said building structural components based on said CAD data retrieved from said storage means.
3. (currently amended) A processing system for processing building structural components according to claim 1, wherein said strengths are grouped into a plurality of different bands based

on magnitudes of said strengths, wherein each of said a strength level display mode[[s]] is assigned to each of said corresponding bands.

4. (previously presented) A processing system for processing building structural components according to claim 1, wherein said two-dimensional diagram constructing means projects a cross section of said virtual three-dimensional model onto said plane, wherein said cross section of said virtual three-dimensional model is obtained by cutting said virtual three-dimensional model at a desired position.
5. (currently amended) A processing system for processing building structural components according to claim 3 [[1]], wherein each of said strength level display modes is represented by a respective color[[s]] provided in said two-dimensional diagram.
6. (currently amended) A processing system for processing building structural components constituting a building structure, said processing system comprising:
 - a first station comprising:
 - an input means for inputting at least shape data and relative position data of said building structural components;
 - a two-dimensional diagram constructing means for constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said various shape data and relative position data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane;
 - a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;
 - a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and
 - a cost estimating means for estimating costs of said building structural components based on said CAD data retrieved from said storage means; and
 - a computer aided manufacturing means second station comprising a processing means for cutting processing each of said building structural components based on said CAD data retrieved

from said storage means, wherein said computer aided manufacturing means processing means is interconnected with said first station through a communication line.

7. (original) A processing system for processing building structural components according to claim 6, wherein said first station further comprises a strength computing means for computing strengths of said selected building structural components based on said CAD data retrieved from said storage means.

8. (currently amended) A processing system for processing building structural components according to claim 7, wherein said strengths are grouped into a plurality of different bands based on magnitudes of said strengths, wherein each of said a strength level display mode[[s]] is assigned to each of said corresponding bands.

9. (previously presented) A processing system for processing building structural components according to claim 6, wherein said two-dimensional diagram constructing means projects a cross section of said virtual three-dimensional model onto said plane, wherein said cross section of said virtual three-dimensional model is obtained by cutting said virtual three-dimensional model at a desired position.

10. (currently amended) A processing system for processing building structural components according to claim 8 [[6]], wherein each of said strength level display modes is represented by a color[[s]] provided in said two-dimensional diagram.

11. (currently amended) A processing system for processing building structural components according to claim 6 [[2]], wherein said costs estimated by said cost estimating means are different from actual costs of said building structural components that are computed based on actual shape data of said respective building structural components.

12. (new) A processing system for processing building structural components constituting a building structure, said processing system comprising:

a first station comprising:
an input means for inputting at least shape data and relative position data of said building structural components;

a two-dimensional diagram constructing means for constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said shape data and relative position data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane, said two-dimensional diagram constructing means also projects a cross section of said virtual three-dimensional model onto said plane, wherein said cross section of said virtual three-dimensional model is obtained by cutting said virtual three-dimensional model at a desired position;

a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;

a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and

a strength computing means for computing strengths of said selected building structural components based on said CAD data retrieved from said storage means; and

a second station comprising a processing means for processing each of said building structural components based on said CAD data retrieved from said storage means, wherein said processing means is interconnected with said first station through a communication line.

13. (new) A processing system for processing building structural components constituting a building structure, said processing system comprising:

a first station comprising:

an input means for inputting at least shape data and relative position data of said building structural components;

a two-dimensional diagram constructing means for constructing a two-dimensional diagram, wherein said two-dimensional diagram constructing means first constructs a virtual three-dimensional model of said building structural components based on said shape data and relative position data inputted from said input means and also supplemental data arranged in a CAD program, and then constructs said two-dimensional diagram by projecting selected building structural components, which are selected from said building structural components of said virtual three-dimensional model, onto a plane;

a display means for displaying said two-dimensional diagram constructed by said two-dimensional diagram constructing means on a display screen;

a storage means for storing CAD data for constructing said virtual three-dimensional model constructed by said two-dimensional diagram constructing means; and
a cost estimating means for estimating costs of said building structural components based on said CAD data retrieved from said storage means, wherein said costs estimated by said cost estimating means are different from actual costs of said building structural components that are computed based on actual shape data of said respective building structural components; and

a second station comprising a processing means for processing each of said building structural components based on said CAD data retrieved from said storage means, wherein said processing means is interconnected with said first station through a communication line.